



HANDHELDS NEWS

■ MICROSOFT LAUNCHES WINDOWS MOBILE 5.0

Microsoft's chairman Bill Gates has announced the launch of version 5.0 of its Windows Mobile software. He says that this version will create a new generation of smartphones, Pocket PCs and Portable Media Centers, bringing all the different handheld devices together under a common operating system.



It features improvements to the built-in Word Mobile, Excel Mobile and PowerPoint Mobile programs, and support for persistent memory so data is not lost when the device's batteries run out. Windows Mobile 5.0 also supports ActiveSync 4.0, allowing you to synchronise wirelessly with your PC using Bluetooth, and enables smartphones to have wireless networking and 3G capability for surfing the internet at broadband speeds.

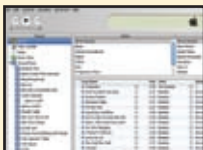
There have been some marked improvements to the operating system's multimedia support. Users can synchronise media files directly from Windows Media Player 10 on their PC and play them back on their handheld. Windows Media Player 10 also supports protected digital songs and videos from services such as MSN and Napster. Windows Mobile 5.0 adds support for integrated hard drives, allowing users to store several gigabytes of music or video, as well as supporting the USB2 standard for the fast transfer of files from a PC. The new operating system is also capable of running Direct3D programs for handheld gaming.

At the moment, the new version is set to ship only with new handhelds. However, Dell and HP have announced upgrades for certain models in their ranges. No pricing information is yet available for the upgrade.

■ MOTOROLA SQUASHES iTUNES PHONE RUMOURS

Motorola's CEO Ed Zander has denied that mobile phone network operators are not prepared to carry its iTunes-playing mobile phone, the Rokr. "There is no resistance on anybody's part," Zander said.

The rumours claim unwillingness on the part of carriers to offer the phone while taking no share of revenues from music sales. The Rokr will be the first device apart from the iPod to play music downloaded from Apple's iTunes Music Store.



REVIEW IN-CAR GPS UNIT

NAVMAN iCN 510

RATING ★★★★★

PRICE £350 inc VAT

SUPPLIER www.amazon.co.uk

DETAILS www.navman.com

There is a bewildering array of global positioning system (GPS) devices available, from combinations of PDA and GPS devices to software that runs on a mobile phone. Navman's iCN 510 keeps things simple as a standalone in-car unit.

The iCN 510 is larger and thicker than a normal PDA, but unlike the TomTom Go series it is small enough to fit in a pocket for when you want to travel on foot. It feels well built and the GPS aerial doesn't wobble when in position, locking into place with a solid click. The 320x240 screen is easy to see in bright sunlight, while the fonts used for mapping are sharp and easy to read when driving.

The iCN 510 is an able navigation tool. A route can be planned by simply inputting the destination using the onscreen keyboard and stylus, or by using the Trip Planner application to set waypoints along the journey. These can be addresses or points of interest, such as hotels or restaurants, though the database supplied with the unit is limited. Third-party Points of Interest files can be downloaded from the internet, but most are only compatible with TomTom's navigation products.

It takes just a few seconds to work out the route based on your preferences. You use five-point scales to set the compromise between the quickest journey and the shortest, and the extent to which motorways and urban roads should be avoided. Entering addresses is easy enough, but the postcode finder accepts just five characters, so only a vague area can be defined and a road name and number have to be specified. Maps for additional



countries come on CD and can be transferred to the unit with the supplied USB cable.

On the move, you keep track of your progress using the top-down display or a smooth-scrolling 3D view. The easiest display to follow has an arrow that tells you where to turn next on a map of the junction. The software tells you which lane to use and which exit to take from a roundabout, leaving little room for error, and instructions are announced in a clear voice just before the turning and at the turning itself. If you make a wrong turn, the iCN 510 calculates how to get back on track quickly and avoids a U-turn wherever possible. If changes need to be made on the road, there is a directional keypad and a remote control, which are much easier to use than the stylus when moving.

This is a dedicated GPS unit, and it is easy to remove from the car and carry with you. It is good value, but the limited postcode support and small Point of Interest database count against it.

Chris Finnamore

✓ Clear screen; fast route calculation

✗ Limited postcode support

SPECIFICATIONS GPS navigation, 3½" 320x240 LCD, USB interface, remote control, SD card slot. **Part code** iCN 510 UK

HOTLIST SMARTPHONE

ORANGE SPV C500

RATING ★★★★★

PRICE From free to £130 inc VAT

depending on contract

SUPPLIER Orange 0500 802080

DETAILS www.orange.co.uk

The C500 is the smallest smartphone on the market and has an excellent 2.1" colour screen, Bluetooth, micro SD card slot and 64MB of memory. Windows Mobile 2003 Second Edition is a vast improvement over its predecessor. If you want to stay organised on the move, this smartphone is easily the best one for the job.



SPECIFICATIONS Windows Mobile 2003 Second Edition, 64MB memory, tri-band phone, colour screen, 640x480 camera. **Part code** C500

HOTLIST PALM PDA

PALMONE Tungsten E

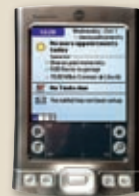
RATING ★★★★★

PRICE £132 inc VAT

SUPPLIER www.savastore.com

DETAILS www.pcwbusiness.com

The Tungsten E manages to include the essential features of the T2 at a much lower price. You do miss out on the bells and whistles: there's no Bluetooth capability and its Micro USB interface limits expansion. However, excellent integration with Outlook and Pocket PC devices, Documents To Go 6 software and Graffiti 2 handwriting recognition make it an excellent business handheld.



SPECIFICATIONS 126MHz processor, 32MB RAM, USB interface, colour screen, Palm OS 5.2.1. **Part code** P8088ML3



REVIEW SMARTPHONE

PALMONE
Treo 650

RATING ★★★★★

PRICE £400 SIM-free; £100-£200

with mobile phone contract

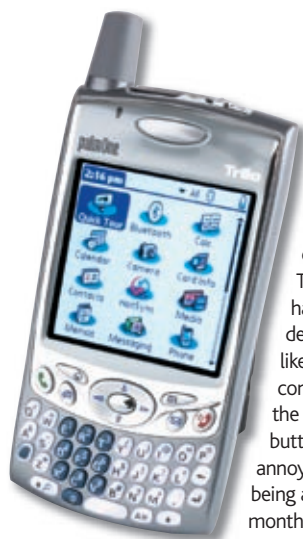
SUPPLIER www.dabs.com (SIM-free);www.orange.co.uk (contract)DETAILS www.palmone.com

PalmOne's Treo 650 aims to address some of the criticisms aimed at its predecessor, the 600 – namely the lack of Bluetooth and the difficulty of operating the phone without a stylus. The 650 also has an improved screen and call answer and end buttons, so it feels more like a phone.

The 650 is almost exactly the same size as the 600, but is 10g heavier at 178g. It is much thicker than a normal phone, but about the same size as a PDA, and fits more comfortably in your pocket than the O₂ Xda Ili (see our *Labs* PDA Megatest, page 183). Its grey and silver finish looks smart, but it has a stubby external aerial, which is apparently popular in the US. The mass of buttons under the screen look messy, but the colour coding of number keys is a pleasing design touch.

The screen is a big improvement over the 600. It has four times the resolution at 320x320 pixels, and is bright with much smoother text. Its 2.8" display is smaller than that of a dedicated PDA, but larger than most smartphone screens. The rear of the handset houses a camera. While its 640x480 pixel resolution is low by today's standards, it performs much better than most phone cameras in low-light conditions, even without a flash.

The Treo is based on a modified version of Palm OS 5.4.5. The most noticeable change is the omission of the Graffiti handwriting recognition software, replaced by the QWERTY keyboard under



the screen. It is easy enough to use, and typing is less confusing than on T-Mobile's MDA III's integrated keyboard. PalmOne has also heeded its critics regarding the interface. The Treo 600 was criticised for having too many functions, dependent on the stylus to feel like a real phone. The 650 can be controlled almost entirely using the directional keypad and menu buttons. There are a couple of annoying exceptions, such as not being able to switch from week to month views in the calendar without the stylus, but generally it works well.

Synchronising with your PC is simple using the supplied USB cable or Bluetooth. The 650 has non-volatile Flash memory, so your data won't be lost if the phone runs out of battery power. Call quality is clear, and we had no reason to doubt palmOne's claims of six hours of talk time and 300 minutes of standby. There is a fair amount of room for contacts and photos in the internal 23MB of memory, and an SD card slot for further expansion.

PalmOne's Treo 650 feels less like a modified PDA and more like a true mobile phone than the 600. The non-volatile system memory is a great bonus, and aside from having to use the stylus for some basic functions it is easy to use. It's expensive SIM-free, but better value when purchased with a mobile phone contract.

Chris Fynamore



Clear screen; good messaging capability



Stylus has to be used for some basic functions

SPECIFICATIONS Smartphone, Palm OS 5.4.5, 312MHz Intel PXA270 processor, 23MB RAM, VGA camera, Bluetooth, infrared, GPRS, SD card slot. **Part code** 1040EU

HOTLIST POCKET PC

SONY ERICSSON
P910i

RATING ★★★★★

PRICE £360 inc VAT

SUPPLIER www.edirectory.co.ukDETAILS www.sony-ericsson.co.uk

Sony Ericsson's P910i is a combination PDA and mobile phone that runs the Symbian operating system. It works well as a phone thanks to the flip-up numeric keypad, which doubles as a QWERTY keyboard when open, but is slightly larger than a normal mobile. It can edit Microsoft Word and Excel documents and send and receive email on the move with GPRS. It's available for £360 SIM-free – much cheaper than the original £500.

SPECIFICATIONS 156MHz ARM processor, 64MB RAM, Memory Stick Duo slot, Bluetooth, 3.8" screen, Symbian 7.0. **Part code** P910i



HOTLIST POCKET PC

DELL
Axim X50v

RATING ★★★★★

PRICE £272 inc VAT

SUPPLIER Dell 08701 524649

DETAILS www.dell.co.uk

Dell's Axim X50v is simply the best Pocket PC we've seen. A 624MHz processor, 192MB of memory and a 640x480 colour screen make it a powerful package. Add in the 3D graphics chip and you can also play games on it. With WiFi and Bluetooth included in the bundle, it's excellent value for money.

SPECIFICATIONS 624MHz processor, 64MB RAM, 128MB ROM, SD/MMC/SDIO slot, Type II CompactFlash slot, Bluetooth, 802.11b WiFi, infrared, USB docking cradle, 175g, Windows Mobile 2003 for Pocket PC Second Edition



CHOOSING A...

PALM
PDA

Five points to remember when buying a Palm handheld device

1 The Palm operating system (Palm OS) is produced by PalmSource, and the largest computer manufacturer in the field is palmOne. A high-end Palm PDA, such as the Tungsten T5, may be based around an Intel XScale 416MHz processor. However, Palm OS isn't as demanding as Pocket PC, and also uses slower processors such as Texas Instruments' 126MHz OMAP. Most Palm PDAs have a processor speed of around 200-300MHz, which is sufficient to run multimedia applications.

2 Palm PDAs are touch-screen driven and support handwriting recognition. For this, the Palm OS uses a system called Graffiti, which requires users to learn special shapes for some letters.

3 All PDAs based on the Palm OS come with at least a calendar, address book, to-do list, jotter and memo pad. They synchronise with your PC or Mac to make sure the information on both is identical. More advanced Palms include email, SMS and web browsing, voice memo recording, the transfer of Office documents, music, photo and video players, e-book readers and databases.

4 The latest version of Palm OS is 5.4, but various versions are always in circulation. Which one is used in a device depends on the market the PDA is aimed at. PalmSource has decided to do away with version numbers for this reason. Palm OS Garnet is used in the Tungsten PDAs, while Palm OS Cobalt is aimed at communication-type devices such as smartphones.

5 Some Palm PDAs have integrated mobile phone capabilities; these are known as smartphones. Most Palm PDAs can be linked with mobile phones using a cable or, better still, Bluetooth wireless interfaces. A Palm PDA's Bluetooth interface can be used to communicate with any similarly equipped gadget, such as a GPS receiver.

FILL IN YOUR SPECS HERE

(Recommended minimum in grey)

PROCESSOR: Texas Instruments OMAP
126MHz

MEMORY: 32MB

SCREEN: 160x160 pixels, monochrome

OPERATING SYSTEM: Palm OS 5